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ABSTRACT

This paper presents some observations on cooperative learning gathered from research in social and educational literature. Issues of educational reform are also addressed within the context of minority academic achievement. Studies comparing cooperation or greater competition in the classroom appear to be in agreement that cooperative modes of learning seem to be more powerful in producing academic achievement in students. The educational significance of standardized achievement test scores is challenged as inadequately representing the kind of criteria that should be used to appraise the quality of schooling or their effects upon students. A review of literature on minority achievement finds evidence of increased achievement by minority students working in integrated classrooms. A description of cooperative modes of education leads to the conclusion that, when compared with individualized methods, these modes appear to foster student achievement, to increase cross-ethnic friendships, and to improve students' self-esteem and positive attitudes toward other students in urban schools. (JD)

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"Cooperative Learning: Observations and Reflections in Context With Minority Achievement and Educational Reform"

A paper presented to The Association of Teacher Educators

Summer Workshop

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I would like to present some observations on cooperative learning that I have garnered from research in the relevant social and educational literature coupled with preliminary observations at an alternative high school in Jackson, Mississippi. Juxtaposed within this subject are several issues of educational reform which I will address within the context of minority academic achievement. I believe we can all agree that this topic (minority achievement) is one of the major issues that is largely ignored in recent educational reform reports, and, yet, the ramifications of ignoring this issue will be devastating on our society. If "at risk" students continue to fail, drop-out, and bear children at their current numbers, the effects will be: higher crime rates, overcrowded prisons and higher tax rates. In short, every strata of society will be affected. I am convinced that alternative models of education for this cohort must be advanced if we are to make significant gains in the areas of high school retention and graduation rates.

COOPERATION OR GREATER COMPETITION?

For me the most compelling, and, at the same time, controversial research that has been conducted in the areas of classroom teaching and learning styles has recently been accomplished by two brothers, Professors David and Roger Johnson at The University of Minnesota. While their educational publications in general are prolific, the research that has caused much interest in educational circles is centered around a meta-analysis study conducted by them in 1982. Taken from a collection of 122 studies from 1924-1980 that compared competitive, inividualistic and cooperative modes of learning, Johnson and Johnson found that cooperative modes of learning appear to be more powerful in producing academic

achievement than the afore-mentioned modes.[1] (competitive and individualistic) An additional effect is that students who are placed in this environment also express greater personal satisfaction with their school experience, which we know is essential to their self-esteem and future outlook on learning.

Johnson and Johnson are not the only theorists and practitioners who place cooperative learning ahead of the tradition-laden, singular modes of competitive and individualized instruction. William Glasser, a prominent psychiatrist, who specializes in the motivational and emotional problems of students in school settings relates: "Only individuals who are very exceptional can obtain a sense of power (or efficacy) by themselves... He concludes: "the only place that team work is missing in society is in the classroom."[2] I might add here that Dr. James Dobson, a University of Southern California psychologist observes that one of the most painful and signal events in pre-adolescence is rejection related to an overwhelming sense of failure in a competitive elementary classroom.[3] (example of spelling bees and recess) The late education critic John Holt made clear the price we pay for gross competition in the classroom:

> "We destroy the love of learning in children, which is strong when they are small, by encouraging and compelling them to work for petty and contemptible rewards -- gold stars, or papers marked 100 and tacked to the wall, or A's on report cards, or honor rolls, or dean's lists or Phi Beta Kappa keys -- in short, for the ignoble satisfaction of feeling that they are better than someone else."[4]

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[1] Roger T. Johnson and David W. Johnson. "Cooperation in Learning: Ignored but Powerful", Lyceum, 1982, 5, 22-26.

[2] William Glasser, "The Key To Improving Schools: An Interview With William Glasser", Phi Delta Kappan, May 1987, p. 660.

[3] James Dobson, "Preparing for Adolescence", Videotape Series on the Family, Los Angeles, CA., 1978.

[4] Alfie Kohn. The Case Against Competition, (New York: 1986).

Howard Hendricks, Professor of Theology at Dallas Theological Seminary adds:

> "Every time you say to a child, 'If you do this, I'll give you a lollipop,' you're creating a problem because when he becomes an adult, nobody is going to give him lollipops for doing what should be done... What you are after is to help your child develop a desire for internal control. And this does not come about by external rewards."[5]

I am not advocating riddance of report cards and dean's lists, however, I do believe they are to be placed in perspective. Mark Lepper and his colleagues have found that overuse of extrinsic rewards for students leads to behavior that only seeks out activities which have a tangible rewards system at its base.[6] If we consistently award our students/children with outward rewards their intrinsic motivation for doing their best will not be placed within the preferred context of achievement irregardless of circumstance or reward, or, for the internal satisfaction of having accomplished their best effort.

Concurrently, Alexander Astin, professor of higher education at UCLA and a respected educational scholar recently commented: "...the capacity to be a good team member and to work cooperatively with co-workers should be one of the basic skills we try to develop in our general education programs."[7] Astin places the blame of some forms of under-achievement and low motivation on the doorsteps of our educational institutions which push for prestige and recognition within a competitive or Darwinian context of "sink or swim". Students do not learn how

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[5] Howard Hendricks, Quote from: "The Church Around The World", September, 1982.

[6] Mark R. Lepper, ed., The Hidden Cost of Reward. (Hillsdale, N.J.: Erlbaum Associates, 1978).

[7] Alexander Astin, "Competition or Cooperation?": Teaching Teamwork As A Basic Skill", Change, September/October, 1987.

to create positive interdependence, or, the idea of swimming or sinking together. Our rugged American individualism denys any genuine need for "others". Furthermore, we not only place young adolescents in highly competitive environments, but, we continue to "track" them through high school. Frequently, we place them on two mutually exclusive tracks: gifted and remedial. The result has been a "caste-like" system that traditionally serves as a future career placement service which coordinately maintains a distinct and separate social class system. Jeannie Oakes argues:

> "Tracking seems to retard the academic progress of many students -- those in the average and low groups. Tracking seems to foster low self-esteem among these students and promote school misbehavior and dropping out. Tracking also appears to lower the aspirations of students who are not in the top groups. And...tracking separates students along socio-economic lines, separating rich from poor, whites from non-whites. The end result is that poor and minority children are found far more often than others in the bottom tracks. And once there, they are likely to suffer far more negative consequences of schooling than are their more fortunate peers. This much we know."[8]

With the current administration in Washington, the pronouncements from the Education department have suspiciously sounded like press conferences from General Motors. Secretary Bennett's formula for reform in American schools is quite simply a plan for meritocracy and continuance of this caste system. If Mr. Bennett had his way, we would replicate the Japanese school system, add more students to each classroom (up to 40), pay teachers more who would lecture to these larger classes, and produce a viable work force for our nation's corporations. If Mr. Bennett's plan is realized, many of us in this room would be out of a job by the next decade because the number and need for students attending liberal arts colleges would fall dramatically. The rest -- upper-middle class students would attend selective colleges, (supposedly to be groomed

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[8] Jeannie Oakes. Keeping Track, (New Haven: Yale University Press, 1985).

to replicate their father's/mother's careers), while the remaining high school graduates would join factory assembly lines.

But, I need to get back to the educational outcomes of cooperative learning. A ten-year study by Margaret Abercrombie in 1964 on the selection and training of medical students at University College at the University of London concluded: "diagnosis, the art of medical judgment and the key element in successful medical practice, is better learned in small groups of students arriving at diagnoses collaboratively than it is learned by students working individually."[9] What she found was that students learning diagnosis cooperatively acquired good medical judgment faster than individuals working alone. This study had enormous impact upon medical school practice, but curiously enough, had little impact upon mainstream pedagogical practice.

Finally, Kenneth Brufee, professor of English at Brooklyn College, found that collaborative learning is a useful way of engaging students more deeply with the text. He concluded:

> "students' work tended to improve when they received help from peers: peers offering help, furthermore, learned from the students they helped and from the activity of helping itself. Collaborative learning, it seemed, harnessed the powerful educative force of peer influence that had been -- and largely still is -- ignored and hence wasted by traditional forms of education."[10] (example of personal investment in writing)

I must admit here that for every one study or quote that I pull from the literature that contributes to the forcefulness of an argument for cooperative

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[9] Kenneth Bruffee, "Collaborative Learning and the 'Conversation of Mankind'", College English, Vol. 46, 7, November 1984, p. 636.

[10] Ibid., p. 638.

modes of learning, there are studies which will suggest otherwise, especially in context with our competitive economic system and the "wonderous" overachievers it produces. Unfortunately, we are now coming to grips with the results of some "burned-out" overachievers in sometimes tragic circumstances (i.e. The high rates of drug abuse, suicide, and divorce). David Elkind, Professor of Child Development at Tufts University warns us: "High school students are pressured not only to get good grades but to get into as many advanced-placement classes as soon as possible...such pressures run the risk of producing children who are dependent and lacking in self-esteem".[11] (I should add that Elkind and other child psychologists have recently found that "hurried-up" pre-adolescents are increasingly facing acute emotional problems).[12] The academic "imbalance" occurs when we (educators/parents) use competition exclusively in our classrooms. If a student's motivation for performing well academically is by defeating the other person, or, by proving to teachers, peers, and parents that s/he can compete, the long-term, pedagogical outcomes are problematic at best. Additionally, if the student feels isolated in the classroom, due to an over-emphasis on "seat" work and homework, s/he will find learning to be a very lonely experience. I think there is room for diversity here, and, what I argue for is a re-thinking of the kinds of environment that we create in the classroom. Also, the methods we use to present content in our schools need to be re-thought and more closely examined, if we are to reach a significant cohort of students. (eg. non-competitive, needy, "at-risk" students)

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[11] David Elkind, "Growing Up Faster", Psychology Today, February 1979.

[12] David Elkind, "Super Kids and Super Problems", Psychology Today, May, 1987, 60-61.

More importantly, we, as professors of education have an obligation to provide for an environment where every child has the opportunity and invitation to succeed. I see an increasing trend in some schools, in order to gain credibility in certain academic circles, or, as a result of pressure from overly-ambitious parents, to mirror competitive, "academically-rigorous" environments. While I applaud efforts to up-grade deficient academic programs, I am dubious of employing perceived successful academic models that perpetuate or advocate a social and academic Darwinistic system that culminates with an inordinate amount of emphasis placed upon performance on standardized tests. What price are we willing to pay to increase standardized achievement scores? These scores on SAT or ACT tests and other standardized examinations have now become the touchstone for proven success in the academy, and, at our institution, they (scores) have become the subject of much faculty concern, since we frequently publish the rising ACT/SAT scores of our freshman class. We use these scores as a way of further separating ourselves from other liberal arts colleges and to encourage further competition for admission into the college. Elliott Eisner concludes:

> "I have little confidence in the educational significance of standardized achievement test scores. It's not that the scores have no meaning, it's simply that they tap much too slender a slice of what I believe is important in education. Neither standardized achievement scores, nor the SAT, nor the tests used for advanced placement adequately represent the kind of criteria what should be used to appraise the quality of schooling or their effects upon students."[13]

I am in daily contact with the source of these scores, and am distressed with the near psychotic obsession with -- GRE, LSAT, MCAT scores -- (G.P.A.'s may be included), as if these numbers now represent the personal and economic worth of

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[13] Elliott W. Eisner. "The Kind of Schools We Need", Educational Leadership, October 1983, p. 49. For a more complete discussion of this topic see also: Charles V. Willie, "On Excellence and Equity in Higher Education", The Journal of Negro Education Vol. 56, no. 4, 1987, pp. 485-492.

the student! Sadly, these students can no longer separate the score from their self-worth. While I somewhat sadly understand parental vicariousness and preoccupation with high marks, I have a hard time understanding our educational institutions re-inforcing or replicating a meritocracy.

It is far too simplistic to imitate what we believe to be successful academic environments by building competitive structures in our schools. In my role as an Mississippi Teacher Assessment Instrument evaluator for the state, I recently visited a prominent private academy to evaluate their beginning teachers. I was impressed with their knowledge relative to their academic disciplines, but, I was mildly alarmed at their methods of presenting their lessons. One teacher used (what I considered to be) a contrived Socratic dialogue with his class. As he directed the students around an intimate circle, he proceeded to ask questions which clearly had "correct" answers, in essence, the answers had to fit within his particular methodological framework for presenting the content -- quite a task for seventh graders! He rewarded "correct" answers and ignored or corrected comments which he viewed as either irrelevant or wrong, without attempting to discern how the student came to the answer or attempting to understand the process of coming to terms with the material. Hence, the class discussion was dominated by a FEW bright, competitive students who possessed the genius of figuring out his framework. But what of the rest -- the silent majority? They were relegated to the role of spectator. Under the guise of Socratic questioning, the teacher was able to conclude that everyone had an opportunity to contribute to the discussion, however, it does not take long for even "average" students to comprehend the "rules of the game". My point is this: as educators, we cannot afford the luxury of restricting our lessons to discourse with a bright

"few", we are responsible for the "whole". How can we successfully involve the "whole"? I am convinced that cooperative modes of learning have not been fully tested or utilized in our private of public classrooms.

COOPERATION AND MINORITY ACHIEVEMENT

A review of the literature addressing minority achievement in context with cooperative modes of learning is very encouraging. At Johns Hopkins, Professor Robert Slavin conducted studies on cooperative modes of learning and their effects on minority achievement. Particularly, he examined minority achievement in an integrated classroom and found that non-white students had higher achievement rates than their white peers in a cooperative classroom pedagogical environment.[14] Slavin offers little evidence as to why the results skew in favor of the non-white cohort. The temptation to speculate could lead one to the conclusion that white students learn very early that competition is a fact of life in education institutions, while non-white students view the educational process with comparatively more ambivalence and apathy. As a result, there is a lack of willingness and motivation on the part of minority students to compete in the classroom.

In a review of the literature on social studies teachers who employed cooperative modes of learning from 1976-1983, James Leming concluded that compared with other methods, cooperative learning produced greater academic learning, better intergroup relations among black, white and hispanic students, enhanced self-esteem, and improved relationships between mainstreamed academically handicapped

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[14] Robert Slavin and Eileen Oickle. "Effects of Cooperative Learning on Student Achievement and Race Relations: Treatment by Race Interactions", Sociology of Education, July 1981, pp. 174-80.

students and other students. Many of the classes utilized cooperative techniques advanced by Professor Slavin, such as student team achievement divisions (STAD) -- a method in which students with widely varying academic abilities are assigned to four or five member teams. Other techniques included: the "jigsaw" method -- in which students become "experts" on a topic, then meet with other "experts" to study their assigned topic. Finally, the Group Investigation Model was another popular method utilized involving cooperative group inquiry emphasizing data gathered by students, interpretation of information through group discussion, and synthesis of individual contributions into a group project.[15]

Johnson and Johnson again conducted a study on the effects of cooperative learning compared with individualistic modes in a racially integrated class. Their research suggests, in accordance with their previous studies, that cooperative learning experiences promoted higher academic achievement for minority students, more cross-ethnic interaction aimed at supporting and regulating efforts to learn and ensuring the active involvement of all students, and greater cross-ethnic interpersonal attraction. Their findings support the position that cooperative experiences result in liking regardless of the ethnic membership or achievement level of collaborators.[16]

In another compilation of research studies, Carol Ascher found that in schools where cooperative learning techniques are utilized the effects are more positive, particularly in the areas of race relations and academic achievement. Also,

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[15] James Leming, "Cooperative Learning in Social Studies Education: What Does the Research Say?" ERIC Digest No. 20, Sept. 1985. (excerpted from NCSS Bulletin No. 75)

[16] David and Roger Johnson, "Are low achievers disliked in a cooperative situation? A test of rival theories in a mixed ethnic situation." Contemporary Educational Psychology, April 1983, pp. 189-200.

these techniques have assisted efforts towards building a more positive climate and reducing suspensions. Additionally, the study found that cooperative models appeared to foster better student achievement than individualistic methods, increase cross-ethnic friendships, and improve students' self-esteem and positive attitudes towards other students in urban schools.[17]

Cooperative Modes of Education

As I mentioned earlier, since my arrival at Millsaps College, I have been involved in a field-based educational experience with my undergraduates at Bailey Alternative School. This school began in 1984 as a magnet school committed to making a difference in the lives of students who desired to assume greater responsibility for their education and behavior than was possible in the traditional schools in Jackson. The JPS administration was persuaded that alternative methods of teaching were needed to attain these goals. With approval from central office, the principal has diligently "educated" her faculty regarding collective, cooperative or collaborative methods of education and has molded a quite remarkable and unique school. While they have not "arrived", they have by all accounts, made a difference in the attitudinal, motivational and achievement levels of many students. It is with the previously mentioned research findings in mind that I have embarked on an ethnographic inquiry into cooperative modes of learning in context with minority achievement. The impending academic year will be devoted to data collection, interviews, observations and a cross-comparison with a traditional high school, which are all intended to test the findings of the afore-mentioned studies.

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[17] Carol Ascher, "Cooperative Learning in the Urban Classroom", ERIC Digest, Number 30, August 1986.

Last semester I visited a number of classes at the Bailey Alternative Secondary School, in a variety of roles, and was impressed with the level of engagement with the material that teachers and students employed in a collaborative mode of learning. Instead of traditional desks, students were seated around tables where they engaged in discussion of the lesson, directed by either the teacher, a member of their small group, or, a member of another group. The "acid test" was in my role as a substitute teacher. I think we all know that substitutes can fully understand the meaning of "testing". As a substitute for a math teacher, (and, by the say, I am barely functional in this field) -- I was impressed with the manner in which students worked efficiently, cooperatively and independently with their assignment for the day. Not being in my "element", I became less apprehensive as the day wore on -- we all knew someone or group could explain a more difficult calculation. I could not tell you what a relief it was to know that I was not the "bottom line" for these students -- they KNEW they could find the answer without me!

How do students attain this level of confidence? By knowing that they can depend upon each other for their learning. I must emphasize here that each student is responsible for a large part of the assignment and thay they are individually tested. Cooperative learning should not be misconstrued to mean that brighter students "carry" the less able. The average or remedial students learn from everyone, not exclusively from the teacher or the text. Johnson and Johnson conclude: "...the behavior that correlates most highly with achievement in

groups is giving explanations, not getting them.[18] And, the "brighter" students are invigorated by discussion of the lesson. There is active involvement with and personal investment in the subject. It is not a distant, awesome task -- it is a time for discovery, punctuated with questions and struggles which have neither perjorative nor contrived responses from the teacher.

I would like to share some ideas from my own classroom experiences (and other educators) that may contribute to a further discussion of the realm of possibilities that exist with cooperative learning.[19] First, creating a cooperative environment demands attention to the physical classroom. Obviously, if the room is traditionally-arranged, row by row, the environment is NOT conducive to open discussion. While not all teachers feel comfortable with tables, they should examine the possibilities of arranging the room where students are looking directly at others. This is not a new idea, but, you would be surprised to discover how many teachers fail to take into account the physical design of their classroom and its effects on their students and subsequent discussions.

Second, teachers need to be aware of the students in the classroom who already possess (or have the potential to obtain) good communication skills, and, are able to lead discussions in group settings. These students should be placed in heterogenous groups, so that all groups will have the possibility of "balance". This may mean that the teacher may have to invest some extra time "training"

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[18] David and Roger Johnson, "Cooperative Learning", Psychology Today, October 1987, p. 55.

[19] Roy Smith, "A Teacher's Views on Cooperative Learning", Phi Delta Kappan, May 1987.

these students for their roles in these groups. I must emphasize that it has been my personal experience that some of the "poorer" students (by GPA standards), have really blossomed by this experience, and, consequently, as their self-esteem grew have improved their academic performance. For once, they feel a responsibility to others and, as a result, possess a greater sense of personal worth as they are given "key" roles in the classroom.

Third, the teacher must emphasize that the group is intertwined with, or connected to, individual outcomes. As one teacher explained: "...students must realize that they will sink or swim together -- that anything they do individually is just one part of whatever whole the group must learn or produce".[20] The responsibility for the results paradoxically lies with both the individual and the group. There is always the possibility of a second chance -- collectively. The whole weight is not placed upon one person's shoulders, and this realization and assurance allows for risk-taking which contributes to creative learning. It can be very difficult to be creative or imaginative without taking some risks.

Finally, there must be a growing recognition on the part of students that THEY are ultimately responsible for their educational outcomes. Eisner reminds us: "...students ought to learn in school how to become architects of their own education. They cannot learn skills by functioning as bricklayers who are supervised by a teacher."[21] We do a grave injustice to our students when we "spoon feed" lessons. I believe this exclusive practice produces docile,

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[20] Ibid.

[21] Eisner, op. cit., p. 52.

uncommitted students. Recently, there has been a growing concern among college faculty members that secondary schools, by encouraging rote memorization of "facts", have contributed to an environment that makes classroom discussion one-sided and stilted.[22] I have been amazed at the students' reticence to present their point of view, opinion, or even question the topic at hand. For higher education to be a successful venture, students must be able to synthesize material/lessons into multiple frameworks of knowledge. Some have pointed to southern culturation and have rationalized that young people from traditional southern backgrounds will not easily offer their opinion or view on subjects which may conflict with others. Since I am from southern lineage, I am rather skeptical of this argument. More importantly, we need to encourage (and instruct) students to present their views and to expect honest, open discussion of their stances. If we educate students to view their education as a life-long process, rather than short-term training, we will be handing them the "tools" (or the idea of self-empowerment) they will need to become life-long learners. Some of our most important and powerful lessons will be learned outside the academic environment, and, we can enhance the "lessons of life" by encouraging our students to become independent thinkers.

We do not produce independent thinkers by placing an inordinate amount of emphasis and time on standardized tests. While accountability and assessment are important and necessary, "teaching the test" will not produce what we are after in education. We know that the kind of rote memorization that typically goes on in many classrooms does not sufficiently carry students through a future course or curriculum of serious study and reflection. In a recent senior seminar, a

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[22] Fred Hechinger, "About Education", New York Times, February 14, 1988.

student commented: "If we (educators) would stop financially supporting ETS and other testing agencies and insist that schools encourage reflective thought alongside vital terminology then maybe true learning (and not short-term memorization) would take place." I echo her comment and concern and ask the question: Why should legislators and bureaucrats (exclusively) make the important decisions surrounding the future of school reform in our country without the advice, and, at times, consent of the professionals and practitioners who take responsibility day in and day out for educating students? We are attempting to educate more students from wider and more diverse backgrounds than at any other time in our history. This is no small feat and one which will continue (because of the changing demographics of family life) to produce mixed results. But, we cannot compromise educational principles and practices which we (as practitioners and scholars) of pedagogical practice know to be effective in exchange for inflated and bogus test scores.

As you are aware, this country is in the throes of educational reform. a recent issue of Chronicle of Higher Education[23] forcefully brought the issue of reform back into focus. As I reviewed (state-by-state) teacher certification requirements, I thought I just might need one of the CPA's from our Else Management School to figure out the number of hours, credits and classes prospective teachers must have in order to be awarded or maintain a teaching license across the United States. In my opinion, we are dangerously close to losing our "voice" in the matter of educating our future teacher candidates. If we do not produce some cooperative work and planning of our own, within this very association, we will forfeit (or abdicate) our voice to others who know far less

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[23] Chronicle of Higher Education, April 20, 1988, pp. 1, 30-36.

WHAT it takes to graduate competent and professional teachers.

The problems are legion, however, I have confidence in this and other professional groups to lead by example and by continuing to produce graduates who have a new vision for their students. Ultimately, they are our only hope. Instead of forming or replicating a rigid "caste-like" system, we must have the courage to take risks (educated, of course!), to change when our theories do not jive with practice, and to continue striving the REACH all students. This goal reaches to the very essence of democracy. While I can say more about specific ways to incorporate cooperative modes of learning in the classroom, I have promised to leave time for questions. Through some meaningful cooperative work of our own, we may discover some ways to help all our students learn more effectively.